

REMARKS/ARGUMENTS

This Amendment is in response to the Final Office Action mailed November 27, 2007 and the Advisory Action mailed March 4, 2008. Claims 1, 2, and 4-18 were pending in the present application. This Amendment cancels claims 1, 2, and 4-18 without prejudice, and adds new claims 21-44, leaving pending the application claims 21-44. Applicants submit that no new matter has been introduced by virtue of these amendments.

Reconsideration in view of the foregoing amendments and following remarks is respectfully requested.

Objection to the Specification

The title is objected to as being not descriptive. Applicants respectfully disagree.

Embodiments of the present invention relate to techniques for building computer graphics models that reference other models. Accordingly, Applicants submit that the present title ("MODEL REFERENCING METHOD AND APPARATUS") is sufficiently descriptive of the present invention as claimed. As such, Applicants respectfully request that the objection be withdrawn.

35 U.S.C. §101 Rejection of Claims 14-18

Claims 14-18 are rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter.

Claims 14-18 have been canceled without prejudice, rendering this rejection moot.

35 U.S.C. §103(a) Rejection of Claims 1, 2, and 4-18

Claims 1, 2, and 4-18 are rejected under 35 U.S.C. §103(a) as being unpatentable over Szabo et al. (US Patent No. 6,768,486, hereinafter "Szabo") in view of Benson et al. (U.S. Patent No. 6,510,516, hereinafter "Benson").

Claims 1, 2, and 4-18 have been canceled without prejudice, rendering this rejection moot.

New Claims 21-44

New claims 21-44 have been added by this Amendment.

Applicants submit that support for these claims can be found in the Specification as filed. Support for claims 21, 29, and 37 may be found in the Specification at, for example, paragraphs 19, 56-58 and FIGS. 4A and 4B. Support for claims 22, 30, and 38 may be found in the Specification at, for example, paragraph 42. Support for claims 23, 31, and 39 may be found in the Specification at, for example, paragraphs 58-59. Support for claims 24, 32, and 40 may be found in the Specification at, for example, paragraphs 54 and 46. Support for claims 25, 33, and 41 may be found in the Specification at, for example, paragraphs 19 and 62. Support for claims 26, 34, and 42 may be found in the Specification at, for example, paragraph 44. Support for claims 27, 35, and 43 may be found in the Specification at, for example, paragraph 48. Support for claims 28, 36, and 44 may be found in the Specification at, for example, paragraph 51.

It is to be understood that this identification of Specification support is provided merely to assist the Examiner and is not intended to be an exhaustive listing of all passages supporting particular claim features, nor is it intended to be limiting of the scope of the claims.

In the interest of expediting prosecution, Applicants further submit that claims 21-44 are patentable over the cited art, namely Szabo and Benson.

Applicants' independent claim 1 is directed to a method for facilitating the reuse of computer graphics models, the method comprising:

receiving, from a first user in a plurality of users, one or more commands for creating a first computer graphics model in a model creation environment, the first computer graphics model including a first plurality of objects;

receiving, from the first user, a request to include an instance of a second computer graphics model in the first computer graphics model, the second computer graphics model including a second plurality of objects;

in response to the request, retrieving a specification of the second computer graphics model, the specification of the second computer graphics model including information

identifying, for at least one object in the second plurality of objects, one or more attributes of said at least one object that are overridable;

creating the instance of the second computer graphics model and including said instance in the first computer graphics model; and

for each object in the instance of the second computer graphics model:

determining, based on the specification of the second computer graphics model, attributes of said each object that are overridable; and

enabling the first user to override values for the attributes of said each object that are determined to be overridable.

(Applicants' independent claim 21, in part, emphasis added).

Applicants submit that Szabo and Benson, considered individually or in combination, fail to teach or suggest the features of claim 21.

Szabo discloses a method for modifying a base geometry object to create a modified, or "derived," version of the object. This modification is performed by applying one or more "modifier objects" to the base geometry object via a stack mechanism. (Szabo: col. 2, lines 45-47: "a sequential ordering of components in the form of a stack may be used to create and modify the geometry object."). As best understood, the base geometry object is a single, discrete object (such as a sphere, tube, *etc.*). Further, the one or more "modifier objects" represent procedural functions for performing a geometric transformation (*e.g.*, bend, taper, *etc.*).

As shown in FIGS. 1A and 1B of Szabo, a sphere object 110 is initially loaded into an object environment. A "bend" modifier function 112 is then applied to sphere object 110 via stack 105, resulting in an appropriately modified sphere object 116. The "bend" modifier function 112 takes as parameters various values that adjust the manner in which the procedural "bend" function is performed (for example, window 114 shows an "Angle" parameter and a "Direction" parameter). However, the "bend" modifier function does not take as parameters any values that directly override the values of attributes inherent to the sphere object.

Benson is directed to a system and method for controlling the usage of "data objects" in a "data object component system." (Benson: Abstract).

Applicants submit that the inventions of Szabo and Benson are substantially different from Applicants' independent claim 21. For example, Szabo and Benson fail to teach

or suggest “receiving... one or more commands for creating a first computer graphics model..., the first computer graphics model including a first plurality of objects,” “receiving... a request to include an instance of a second computer graphics model in the first computer graphics model, the second computer graphics model including a second plurality of objects,” and “creating the instance of the second computer graphics model and including said instance in the first computer graphics model” as recited in claim 21.

As discussed above, Szabo is concerned with modifying a single, discrete object using one or more procedural functions (*i.e.*, modifier objects) to create a modified version of that object. For example, sphere object 110 of Szabo is modified using a “bend” function 112 to create a modified sphere object 116. In contrast, claim 21 specifically recites a first computer graphics model including a first plurality objects, and a second computer graphics model including a second plurality of objects. Further, claim 21 specifically recites including an instance of the second computer graphics model in the first computer graphics model. Thus, claim 21 is concerned with taking two different computer graphics models, each model comprising a plurality of objects, and including an instance of one in the other.

Nowhere does Szabo describe computer graphics models comprising multiple objects. Rather, Szabo merely describes singular objects (*e.g.*, sphere object 110). Further, nowhere does Szabo teach or suggest including an instance of one computer graphics model in another computer graphics model. Rather, Szabo merely describes modifying an object using one or more procedural functions. The deficiencies of Szabo in the regard are not remedied by Benson. For example, Benson does not teach anything about computer graphics models, let alone the specific feature of including an instance of one computer graphics model in another as recited in claim 21. Accordingly, Szabo and Benson fail to teach or suggest “receiving... one or more commands for creating a first computer graphics model..., the first computer graphics model including a first plurality of objects,” “receiving... a request to include an instance of a second computer graphics model in the first computer graphics model, the second computer graphics model including a second plurality of objects,” and “creating the instance of the second computer graphics model and including said instance in the first computer graphics model” as recited in claim 21.

Further, Applicants submit that Szabo and Benson fail to teach or suggest “for each object in the instance of the second computer graphics model, determining, based on the specification of the second computer graphics model, attributes of said each object that are overridable” and “enabling the first user to override values for the attributes of said each object that are determined to be overridable” as recited in claim 21.

As discussed above, the invention of Szabo allows a user to enter parameter values that determine how a specific modifier function is applied to an object. For example, “bend” modifier function 112 includes an “Angle” parameter and a “Direction” parameter that controls how the “bending” is performed on sphere object 110. However, nowhere does Szabo indicate that a user may override values for attributes of an object in a computer graphics model. For example, nowhere does Szabo indicate that attributes of sphere object 110 may be overridden with new values. The deficiencies of Szabo in this regard are not remedied by Benson. Thus, Szabo and Benson also fail to teach or suggest “for each object in the instance of the second computer graphics model, determining, based on the specification of the second computer graphics model, attributes of said each object that are overridable” and “enabling the first user to override values for the attributes of said each object that are determined to be overridable” as recited in claim 21.

For at least the foregoing reasons, even if Szabo and Benson were combined (although there appears to be no rationale for combining), the resultant combination would not teach or suggest the features of Applicants’ independent claim 21. Accordingly, Applicants respectfully submit that claim 21 is allowable over Szabo and Benson.

Independent claims 29 and 37 recite features that are substantially similar to independent claim 21, and are thus believed to be allowable over Szabo and Benson for at least a similar rationale as discussed for claim 21, and others.

Dependent claims 22-28, 30-36, and 38-44 depend (either directly or indirectly) from independent claims 21, 29, and 37 respectively, and are thus believed to be allowable over Szabo and Benson for at least a similar rationale as discussed for claims 21, 29, and 37.

In addition, Applicants submit that claims 22-28, 30-36, and 38-44 recite additional features that further distinguish over Szabo and Benson. For example, claims 25, 33,

Appl. No. 10/766,758
Amdt. dated July 17, 2008
Reply to Final Office Action dated November 27, 2007 and
Advisory Action mailed March 4, 2008

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and 41 recite that an instance of the first computer graphics model created in claims 21, 29, and 39 is included in a third computer graphics model distinct from the first and second models. Claims 26, 34, and 42 recite that the first and second computer graphics models are created by different users. And Claims 27, 35, and 43 recite creating an instance of the third computer graphics model and including the instance of the third computer graphics model in the first computer graphics model. No disclosure pertaining to these features could be found in either Szabo or Benson.

Accordingly, Applicants respectfully submit that claims 22-28, 30-36, and 38-44 are allowable for at least these additional reasons.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance and an action to that end is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,

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